than the favored groups respectively. In the individual records all the unfavored six-year-old boys are below the average of the six-year-old favored boys. In only two cases are six-year-old girls above the average for the favored. Differences in economic or status seem to be correlated with differences in mental capacity so measured which may amount to as much as 30%. It is the conviction of the authors that in the greater part of the practical work of recent mental examination this factor has been neglected. It is proposed to standardize the point scale method so that the mental ability of a subject may be expressed in its relation to the group in which he belongs.

Diagnostic Values of Some Performance Tests. By THOMAS H. HAINES. *Psychol. Rev., 22,* 1915. pp. 299-305.

In a group of institutional girls the Binet and Point Scale ratings of intelligence set apart three groups consisting of 21 high-grade morons, 16 of doubtful defect and 26 of no defect. Further study of these cases was made by the tests enumerated below. Some of the tests gave significantly different averages in each group and others distinguished some one group from another. A test of moral discrimination is detailed, and though it does not differentiate the groups it suggests to the author the need of studying ethical foundations in the minds of girls. The findings for differential diagnosis of the three groups are summarized as follows: (1) Tests of Value for Both Distinctions, The Picture Form Board, Construction Puzzle (A), The Opposites. 2. Tests Good for Differentiation of the Not Defective from the Doubtful, The Labyrinth (B), The Cross Line (B). 3. Test Differentiating the High-grade Defective from the Doubtful, Visual Verbal Memory, Auditory Verbal Memory. 4. Tests of Doubtful Diagnostic Value, Completion. 5. Tests Showing No Definite Diagnostic Value, Construction Puzzle (B), Learning, Motor Coordination, Moral Discrimination.

Point Scale Ratings of Delinquent Boys and Girls. By THOMAS H. HAINES. *Psychol. Rev., 22,* 1915. pp. 104-109.

The Yerkes-Bridges point scale for measuring intelligence has certain advantages over the Binet scale in that different groups are more comparable by it; it allows the individual to make credits in any tests while the Binet credit depends upon passing in a narrow range of tests. After making the point scale tests a few short additional tests will complete the Binet rating so that the two may be conveniently compared. In work of this nature done by the author the results are closely parallel, the point scale results, as one would expect from the above, running a little higher. Tables are given showing the comparison of the Binet and point scale ratings in low grade, medium and undefective boys and girls. In the cases classed as "doubtful" where the Binet age is about 11 and the point scale averages considerably higher, about 14, it is felt that the point scale method contributes especially to the analysis of the case.

The Standardization of Knox's Cube Test. By R. PINTNER. *Psychol. Rev., 22,* 1915. pp. 377-401.

The material is derived from tests of 867 normal children and a few adults, also 463 feeble minded. In the test four cubical blocks "are placed on the table in front of the subjects at a distance of about 2 inches apart. The examiner holds the fifth cube in his hand. He says to the subject, 'Watch carefully and then do as I do.' He

then taps the blocks with the fifth cube in a certain definite order and at a certain definite rate (about one tap per second), always beginning with the cube at the child's left or the examiner's right if he is facing the child. He then lays the fifth cube down in front of the child, equidistant between the third and fourth cube, but nearer to the child, and says, 'Do that.'" The blocks were tapped in 12 different ways, designated lines A-J. The complexity of the pattern which can be followed is the index of performance in the test. Curves are given showing the percentages of correct responses for each age and how the patterns ("Lines") compare with each other in difficulty. These curves are quite significant for the author. In defining the age limit of a test he would require about 60% passes but considers that beyond that the best age for placing a test will depend on the shape of the curve showing a percentage of passes at each age. The correct passing of three of his lines, BCD, is delayed until about the fourteenth year. The test may be also evaluated in terms of the number of lines passed correctly at each age. The results gained in this way are about the same as by considering special groups of lines, which is his first described method. In 20 cases the Binet ages were available for comparison and the author considers it surprising that any one test should come so near the results arrived at by a whole series of tests. Two definite types of errors, perseveration and reverse order, are noted. Normal children on the whole do slightly better in the cube test than the feeble minded of corresponding mental age. In summary he gives performances in the test, either by the group method or the actual number of lines method of scoring, which correspond to mental levels of 5, 6, 7, 10, 14 and 16 years. He considers that the child should be credited with the age at which the most difficult combination is passed.

The Adequacy of the Laboratory Test in Advertising. H. F. ADAMS. *Psychol. Rev.*, 22, 1915. pp. 402-422.

The feasibility of predicting through a simple experiment the relative amount of business which different advertisements will bring in is indicated in the writings of Strong and Hollingworth. The general conclusion is drawn that the laboratory test is a satisfactory preliminary in advertising. It was thought that mail order advertising would be worth studying in this connection. A satisfactory measure of the pulling power of an advertisement is not easy. Factors of follow-up, salesmanship and the like seem to make the number of inquiries per insertion the fairest measure. The laboratory tests do not determine whether an advertisement is absolutely good or bad, but only relatively to other members of a series. The figures quoted from the author's experiments show "simply chance resemblance between the results of the laboratory test and the average number of inquiries per insertion, and very little better than chance resemblance between the laboratory test and the business test where profits are used as a measure. . . . With a mail order business it is possible to get returns which are extremely accurate so such advertisements would make the best material for laboratory tests if such tests would only work." College students are however not fair representatives of the mail order purchasing public. The author has been led to question the application of the order of merit method to advertising problems and the previous experiments seem open to attack on several sides. The elaborate keying necessity is impossible with many commonly used articles. Further, the results obtained from laboratory testing are as though the whole hundred per cent of readers were tested instead of